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CLAIMS

[The scope of a claim for utility model registration]

[Claim 1]In a conveyor device guided by a pipe member which equipped a conveyor frame with an article which carries a conveyor top so that change of guide width was possible, A conveyor device having attached an end part of a strut bar member to a holding part which adhered to the above-mentioned conveyor frame so that rotation and immobilization were possible, having attached a guide bracket to the other end of the above-mentioned strut bar member so that rotation and immobilization were possible, and attaching and constituting the above-mentioned pipe member in the above-mentioned guide bracket.

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DETAILED DESCRIPTION

[Detailed explanation of the device]

[0001]

[Industrial Application]

This device is related with the improvement structure of the guide device in a conveyor. [0002]

[Description of the Prior Art]

The **** roller conveyor apparatus illustrated to <u>drawing 5</u> and <u>drawing 6</u> which carry and carry an article on much Collo conventionally is used. Between the conveyor frames 1 of a both sides part, this device puts many rollers 2 in order and it has equipped with it. The conveyor frame 1 on either side is equipped with the guide part 3, respectively. [0003]

The guide part 3 supports the pipe member 4 allotted along with each conveyor frame 1 using the support member 5. The support member 5 piles up and constitutes the rectangular plate of two sheets, the free end section is incurvated, respectively, and sandwiches the pipe member 4 from the upper and lower sides, and enables support of it so that it may illustrate. The oblong hole 6 is drilled along the lengthwise direction center section of the support member 5, and the maintenance bolt 7 and the securing bolt 8 are concluded through this oblong hole 6. [0004]

The maintenance bolt 7 fits in the through nut 9 near the pipe member 4 side in the oblong hole 6 of the support member 5, and it makes the state where this plate of two sheets is put together to one hold while making the state where the plate of two sheets which constitutes the support member 5 pinches the pipe member 4 hold.

[0005]

The securing bolt 8 fits into through at the arbitrary positions in the oblong hole 6 in the support member 5, fits into through and the nut 9 at the bore further provided in the conveyor frame 1,

and fixes the support member 5 to the conveyor frame 1.

[0006]

In the conventional device constituted as mentioned above, guide width W which is an interval of the guide part 3 on either side is adjusted corresponding to the size of the article which conveys the roller 2 top. The securing bolt 8 is loosened, the support member 5 is moved to a necessary position along the oblong hole 6, and this adjustment is performed by fastening the securing bolt 8 again.

[0007]

[Problem(s) to be Solved by the Device]

In the conventional conveyor device like ****, when guide width W of the guide part 3 on either side is made large, as a dashed dotted line shows to <u>drawing 5</u>, the end of the support member 5 will project outside the conveyor frame 1. For this reason, there was a problem that the end of the projected support member 5 might interfere with the thing contiguous to a conveyor device.

[8000]

In the adjustable range of guide width W, only the amount of length of the oblong hole 6 is not, and there was a problem that the variable range of guide width was too narrow practically. [0009]

This design aims at extending the variable range of guide width, while keeping a part of the members forming from interfering with what projects and adjoins the outside of a conveyor frame, even if it changes the guide width of the guide device with which the conveyor device was equipped in view of an above-mentioned point.

[0010]

[Means for Solving the Problem]

A conveyor device of this design attached one end of a strut bar member to a holding part which adhered to a conveyor frame so that rotation and immobilization were possible, attached a guide bracket to the other end of a strut bar member so that rotation and immobilization were possible, and it attached and constituted a pipe member in a guide bracket.

[0011]

[Function]

By constituting as mentioned above, the portion of a movable strut bar member and guide bracket is rocked, the position of a pipe member is changed, and changing adjustment of guide width is made possible.

[0012]

[Example]

Hereafter, <u>drawing 1</u> thru/or <u>drawing 4</u> explain one example of the conveyor device of this design.

In this <u>drawing 1</u> thru/or <u>drawing 4</u>, it supposes that identical codes are given to the portion corresponding to the conventional example shown in <u>drawing 5</u> and <u>drawing 6</u> which were mentioned above, and that detailed explanation is omitted. It is a figure which illustrates this example device, and, as for a conveyor frame and 2, a pipe member and 10 are guide parts a roller and 4 1.

[0013]

The guide part 10 constitutes a link mechanism using the guide bracket 11, the strut bar member 12, and the holding part 13. The guide bracket 11 piles up and constitutes two wafer boards, as shown in drawing 2, incurvates the free end section and sandwiches the pipe member 4 from the upper and lower sides. And it doubles with the round hole which provided the round hole provided in the root apex part of the guide bracket 11 in the end of the strut bar member 12, and the nut 15 is fitted in and concluded through the bolt 14 to these round holes. The other end of the support member 12 is doubled with the round hole which provided the round hole provided there in the free end section of the holding part 13, and fits in and concludes a nut through the bolt 16. The root apex part of the holding part 13 adheres to the upper face part of the conveyor frame 1. Although not illustrated, since the pipe member 4 is a long picture, it is the thing which opened the prescribed interval and which arranges two or more guide parts in a part, respectively, and supports the pipe member 4.

[0014]

Next, the directions of this example device constituted as mentioned above are explained. In changing guide width W first, each bolts 14 and 16 of the guide part 10 are loosened a little, and between the guide bracket 11 and the strut bar members 12 and between the strut bar member 12 and the holding parts 13 carry out as [be / rotatable].

[0015]

Next, as the strut bar member 12 is rocked in the direction of arrow A from the position of the guide width W maximum shown in <u>drawing 3</u>, guide width W is suitably set up by within the limits to the position of the guide width W minimum shown in <u>drawing 4</u>. Then, each bolts 14 and 16 are bound tight, it concludes firmly, and work is ended.

[0016]

The variable range of guide width can be adjusted by changing the length of the strut bar member 12. As for this design, it is needless to say that various composition can be taken in addition to this within limits which are not limited to an above-mentioned example and do not deviate from the gist of this design.

[0017]

[Effect of the Device]

As explained in full detail above, according to the conveyor device of this design, the end of a strut bar member is attached to the holding part which adhered to the conveyor frame so that

rotation and immobilization are possible, Since the guide bracket was attached to the other end of a strut bar member so that rotation and immobilization were possible, and the pipe member was attached and constituted in the guide bracket, By rocking the portion of a movable strut bar member and guide bracket, the position of a pipe member is changed and changing adjustment of guide width is made possible, and even when guide width is expanded to the maximum, it is effective in the ability to prevent what a guide bracket protrudes into the outside of a conveyor frame.

[0018]

It is effective in the ability to adjust the variable range of guide width freely by changing the oscillation angle of a strut bar member, or its overall length.

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TECHNICAL FIELD

[Industrial Application]

This device is related with the improvement structure of the guide device in a conveyor. [0002]

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PRIOR ART

[Description of the Prior Art]

The **** roller conveyor apparatus illustrated to <u>drawing 5</u> and <u>drawing 6</u> which carry and carry an article on much Collo conventionally is used. Between the conveyor frames 1 of a both sides part, this device puts many rollers 2 in order and it has equipped with it. The conveyor frame 1 on either side is equipped with the guide part 3, respectively.

[0003]

The guide part 3 supports the pipe member 4 allotted along with each conveyor frame 1 using the support member 5. The support member 5 piles up and constitutes the rectangular plate of two sheets, the free end section is incurvated, respectively, and sandwiches the pipe member 4 from the upper and lower sides, and enables support of it so that it may illustrate. The oblong hole 6 is drilled along the lengthwise direction center section of the support member 5, and the maintenance bolt 7 and the securing bolt 8 are concluded through this oblong hole 6. [0004]

The maintenance bolt 7 fits in the through nut 9 near the pipe member 4 side in the oblong hole 6 of the support member 5, and it makes the state where this plate of two sheets is put together to one hold while making the state where the plate of two sheets which constitutes the support member 5 pinches the pipe member 4 hold.

[0005]

The securing bolt 8 fits into through at the arbitrary positions in the oblong hole 6 in the support member 5, fits into through and the nut 9 at the bore further provided in the conveyor frame 1, and fixes the support member 5 to the conveyor frame 1. [0006]

In the conventional device constituted as mentioned above, guide width W which is an interval of the guide part 3 on either side is adjusted corresponding to the size of the article which conveys the roller 2 top. The securing bolt 8 is loosened, the support member 5 is moved to a

necessary position along the oblong hole 6, and this adjustment is performed by fastening the securing bolt 8 again.

[0007]

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EFFECT OF THE INVENTION

[Effect of the Device]

As explained in full detail above, according to the conveyor device of this design, the end of a strut bar member is attached to the holding part which adhered to the conveyor frame so that rotation and immobilization are possible, Since the guide bracket was attached to the other end of a strut bar member so that rotation and immobilization were possible, and the pipe member was attached and constituted in the guide bracket, By rocking the portion of a movable strut bar member and guide bracket, the position of a pipe member is changed and changing adjustment of guide width is made possible, and even when guide width is expanded to the maximum, it is effective in the ability to prevent what a guide bracket protrudes into the outside of a conveyor frame.

[0018]

It is effective in the ability to adjust the variable range of guide width freely by changing the oscillation angle of a strut bar member, or its overall length.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Device]

In the conventional conveyor device like ****, when guide width W of the guide part 3 on either side is made large, as a dashed dotted line shows to drawing 5, the end of the support member 5 will project outside the conveyor frame 1. For this reason, there was a problem that the end of the projected support member 5 might interfere with the thing contiguous to a conveyor device.

[8000]

In the adjustable range of guide width W, only the amount of length of the oblong hole 6 is not, and there was a problem that the variable range of guide width was too narrow practically. [0009]

This design aims at extending the variable range of guide width, while keeping a part of the members forming from interfering with what projects and adjoins the outside of a conveyor frame, even if it changes the guide width of the guide device with which the conveyor device was equipped in view of an above-mentioned point.

[0010]

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MEANS

[Means for Solving the Problem]

A conveyor device of this design attached one end of a strut bar member to a holding part which adhered to a conveyor frame so that rotation and immobilization were possible, attached a guide bracket to the other end of a strut bar member so that rotation and immobilization were possible, and it attached and constituted a pipe member in a guide bracket.

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OPERATION

[Function]

By constituting as mentioned above, the portion of a movable strut bar member and guide bracket is rocked, the position of a pipe member is changed, and changing adjustment of guide width is made possible.

[0012]

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EXAMPLE

[Example]

Hereafter, drawing 1 thru/or drawing 4 explain one example of the conveyor device of this design.

In this <u>drawing 1</u> thru/or <u>drawing 4</u>, it supposes that identical codes are given to the portion corresponding to the conventional example shown in <u>drawing 5</u> and <u>drawing 6</u> which were mentioned above, and that detailed explanation is omitted. It is a figure which illustrates this example device, and, as for a conveyor frame and 2, a pipe member and 10 are guide parts a roller and 4 1.

[0013]

The guide part 10 constitutes a link mechanism using the guide bracket 11, the strut bar member 12, and the holding part 13. The guide bracket 11 piles up and constitutes two wafer boards, as shown in <u>drawing 2</u>, incurvates the free end section and sandwiches the pipe member 4 from the upper and lower sides. And it doubles with the round hole which provided the round hole provided in the root apex part of the guide bracket 11 in the end of the strut bar member 12, and the nut 15 is fitted in and concluded through the bolt 14 to these round holes. The other end of the support member 12 is doubled with the round hole which provided the round hole provided there in the free end section of the holding part 13, and fits in and concludes a nut through the bolt 16. The root apex part of the holding part 13 adheres to the upper face part of the conveyor frame 1. Although not illustrated, since the pipe member 4 is a long picture, it is the thing which opened the prescribed interval and which arranges two or more guide parts in a part, respectively, and supports the pipe member 4.

Next, the directions of this example device constituted as mentioned above are explained. In changing guide width W first, each bolts 14 and 16 of the guide part 10 are loosened a little, and between the guide bracket 11 and the strut bar members 12 and between the strut bar

member 12 and the holding parts 13 carry out as [be / rotatable]. [0015]

Next, as the strut bar member 12 is rocked in the direction of arrow A from the position of the guide width W maximum shown in <u>drawing 3</u>, guide width W is suitably set up by within the limits to the position of the guide width W minimum shown in <u>drawing 4</u>. Then, each bolts 14 and 16 are bound tight, it concludes firmly, and work is ended.
[0016]

The variable range of guide width can be adjusted by changing the length of the strut bar member 12. As for this design, it is needless to say that various composition can be taken in addition to this within limits which are not limited to an above-mentioned example and do not deviate from the gist of this design.

[0017]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]The important section top view showing one example of the conveyor device of this design.

[Drawing 2] The important section vertical section front view of the above-mentioned example.

[Drawing 3] The important section top view showing the state where the guide part of the above-mentioned example was made into the guide width maximum.

[Drawing 4] The important section top view showing the state where the guide part of the above-mentioned example was made into the guide width minimum.

[Drawing 5]The important section top view which illustrates the conventional conveyor device.

[Drawing 6] The important section vertical section front view of the above-mentioned conventional example device.

[Description of Notations]

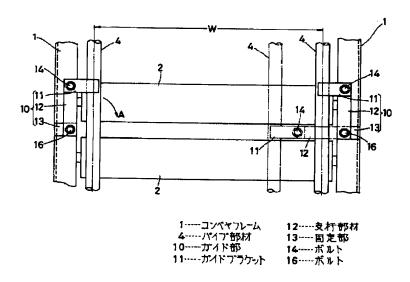
- 1 -- Conveyor frame
- 2 -- Roller
- 4 -- Pipe member
- 10 -- Guide part
- 11 -- Guide bracket
- 12 -- Strut bar member
- 13 -- Holding part
- 14 -- Bolt
- 15 -- Nut
- 16 -- Bolt
- 17 -- Nut

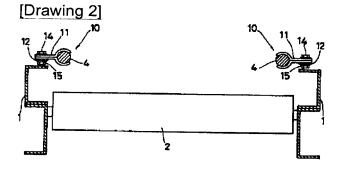
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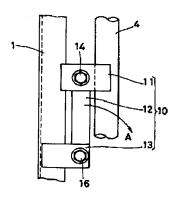
DRAWINGS

[Drawing 1]

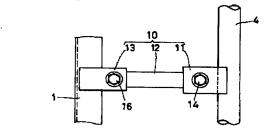


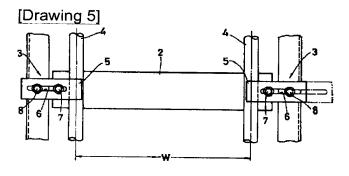


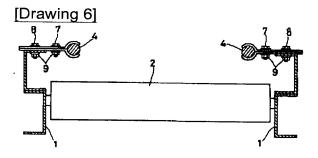
[Drawing 3]



[Drawing 4]







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社明電舎内

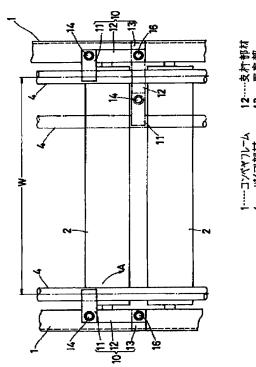
(74)代理人 弁理士 志賀 富士弥 (外1名)

(54)【考案の名称】 コンベヤ装置

(57)【要約】

【目的】 ガイド幅を変更したときに隣接物に干渉する ことがないようにし、ガイド幅の可変範囲を拡大可能と すること。

【構成】 コンベヤフレーム1に固着した固定部13に 支杆部材12の一端部を枢着し、その他端部にガイドブ ラケット11を枢着し、ガイドブラケット11にパイプ 部材を固着した構造。



【実用新案登録請求の範囲】

コンベヤ上を運搬する品物を、コンベヤ 【請求項1】 フレームにガイド幅を変更可能に装着したパイプ部材で 案内するようにしたコンベヤ装置において、

上記コンベヤフレームに固着した固定部に支杆部材の一 端部を回動及び固定可能に取り付け、上記支杆部材の他 端にガイドブラケットを回動及び固定可能に取り付け、 上記ガイドブラケットに上記パイプ部材を取り付けて構 成したことを特徴とするコンベヤ装置。

【図面の簡単な説明】

【図1】本考案のコンベヤ装置の一実施例を示す要部平 面図。

【図2】上記実施例の要部縦断面正面図。

【図3】上記実施例のガイド部をガイド幅最大にした状 態を示す要部平面図。

【図4】上記実施例のガイド部をガイド幅最小にした状

態を示す要部平面図。

【図5】従来のコンベヤ装置を例示する要部平面図。

2

【図6】上記従来例装置の要部縦断面正面図。

【符号の説明】

1…コンベヤフレーム

2…ローラ

4…パイプ部材

10…ガイド部

11…ガイドブラケット

12…支杆部材 10

13…固定部

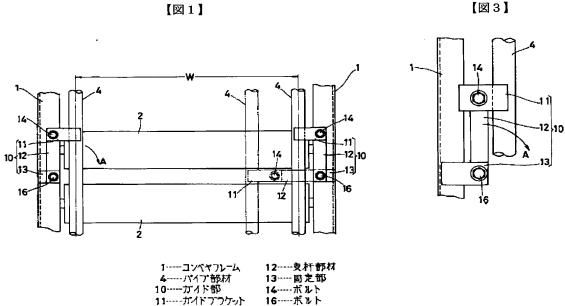
14…ボルト

15…ナット

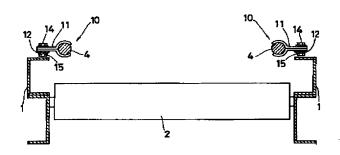
16…ボルト

17…ナット

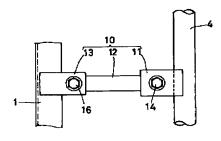
【図1】

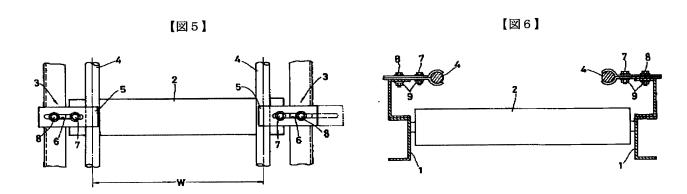






【図4】





【考案の詳細な説明】

[0001]

【産業上の利用分野】

この考案はコンベヤにおけるガイド装置の改良構造に関する。

[0002]

【従来の技術】

従来多数のコロの上に品物を載せて運搬する図5及び図6に例示する如きローラコンベヤ装置が用いられている。この装置は、左右両側部のコンベヤフレーム1の間に多数のローラ2を並べて装着してある。左右のコンベヤフレーム1にはそれぞれガイド部3を装着する。

[0003]

ガイド部 3 は各コンベヤフレーム 1 に沿って配したパイプ部材 4 を支持部材 5 を用いて支持したものである。支持部材 5 は 2 枚の矩形板を重ね合わせて構成するもので、図示するようにその自由端部をそれぞれ湾曲させパイプ部材 4 を上下から挾み付けて支持可能にする。支持部材 5 の縦方向中央部に沿って長穴 6 を穿設し、この長穴 6 を通して保持ボルト 7 と固定ボルト 8 とを締結する。

[0004]

保持ボルト7は支持部材5の長穴6におけるパイプ部材4側近くに通しナット9を嵌合して、支持部材5を構成する2枚の板材がパイプ部材4を挾持する状態を保持せしめるとともに、この2枚の板材が一体に合わさる状態を保持せしめるものである。

[0005]

固定ボルト8は、支持部材5における長穴6内の任意の位置に通し、さらにコンベヤフレーム1に設けた透孔に通し、ナット9に嵌合して、コンベヤフレーム1に対し支持部材5を固定する。

[0006]

上述のように構成した従来の装置では、ローラ2上を搬送する品物の大きさに 対応して左右のガイド部3の間隔であるガイド幅Wを調整する。この調整は固定 ボルト8を緩め、支持部材5を長穴6に沿って所要の位置に移動し、再び固定ボ ルト8を締めることにより行っている。

[0007]

【考案が解決しようとする課題】

上述の如き従来のコンベヤ装置では、左右のガイド部3のガイド幅Wを広くした場合、図5に一点鎖線で示すように支持部材5の端部がコンベヤフレーム1より外側に突出することになる。このため、突出した支持部材5の端部がコンベヤ装置に隣接する物と干渉することがあるという問題があった。

[0008]

また、ガイド幅Wの調整範囲が長穴6の長さ分だけしかなく、実用上ガイド幅の可変範囲が狭すぎるという問題があった。

[0009]

本考案は上述の点に鑑み、コンベヤ装置に装着したガイド装置のガイド幅を変更してもその構成部材の一部がコンベヤフレームの外側に突出して隣接するものと干渉することがないようにするとともに、ガイド幅の可変範囲を広げるようにすることを目的とする。

[0010]

【課題を解決するための手段】

本考案のコンベヤ装置は、コンベヤフレームに固着した固定部に支杆部材の一端を回動及び固定可能に取り付け、支杆部材の他端にガイドブラケットを回動及び固定可能に取り付け、ガイドブラケットにパイプ部材を取り付けて構成したことを特徴とする。

[0011]

【作用】

上述のように構成することにより、可動な支杆部材とガイドブラケットとの部分を揺動して、パイプ部材の位置を変更してガイド幅を変更調整可能とするものである。

[0012]

【実施例】

以下、本考案のコンベヤ装置の一実施例を図1ないし図4によって説明する。

なお、この図1ないし図4において、前述した図5及び図6に示す従来例に対応する部分には同一符号を付すこととし、その詳細な説明を省略する。本例装置を例示する図で、1はコンベヤフレーム、2はローラ、4はパイプ部材、10はガイド部である。

[0013]

ガイド部10はガイドブラケット11、支杆部材12、及び固定部13とを用いてリンク機構を構成する。ガイドブラケット11は2枚の小片板を重ね合わせて構成するもので、図2に示す如くその自由端部を湾曲させ上下からパイプ部材4を挟むようにする。そして、ガイドブラケット11の根端部に設けた丸孔を支杆部材12の一端に設けた丸孔に合わせ、これらの丸孔にボルト14を通しナット15を嵌合して締結する。支持部材12の他端部は、そこに設けた丸孔を固定部13の自由端部に設けた丸孔に合わせボルト16を通しナットを嵌合して締結する。固定部13の根端部はコンベヤフレーム1の上面部に固着する。なお、図示しないがパイプ部材4は長尺であるので、その所定間隔を開けた複数箇所にそれぞれガイド部を配置してパイプ部材4を支持するようにするものである。

[0014]

次に上述のように構成した本例装置の使用法を説明する。まずガイド幅Wを変更する場合には、ガイド部10の各ボルト14,16を少し緩めガイドブラケット11と支杆部材12の間、及び支杆部材12と固定部13の間が回動可能なようにする。

[0015]

次に図3に示すガイド幅W最大の位置から支杆部材12を矢印A方向に揺動するようにして、図4に示すガイド幅W最小の位置までの範囲内でガイド幅Wを適当に設定する。この後、各ボルト14,16を締め付けて強固に締結し作業を終了する。

[0016]

また、支杆部材12の長さを変更することにより、ガイド幅の可変範囲を調整できるものである。なお、本考案は上述の実施例に限定されるものではなく、本 考案の要旨を逸脱しない範囲内においてその他種々の構成を取り得ることは勿論 である。

[0017]

【考案の効果】

以上詳述したように本考案のコンベヤ装置によれば、コンベヤフレームに固着した固定部に支杆部材の一端を回動及び固定可能に取り付け、支杆部材の他端にガイドブラケットを回動及び固定可能に取り付け、ガイドブラケットにパイプ部材を取り付けて構成したので、可動な支杆部材とガイドブラケットとの部分を揺動することにより、パイプ部材の位置を変更してガイド幅を変更調整可能とするものであり、ガイド幅を最大に広げた場合でもガイドブラケットがコンベヤフレームの外側にはみ出すようなことを防止できるという効果がある。

[0018]

また、支杆部材の揺動角度又はその全長を変更することにより、ガイド幅の可 変範囲を自由に調整できるという効果がある。